1.

Technology is advancing quickly, and new electronical devices are announced daily. As this goes on, people now and then change to new products and throw away their old ones. The old ones are accumulated into a pile, making it difficult to get rid of. These piles of mountains could be considered as one of the backlashes occurred by the exponential growth of technology. This advances of technologies usually happen in developed countries. However, this problem of disposing e-waste(electronical waste) is global because there are illegal shippings from developed countries to countries that are still developing. This is a problem because there are laws, but countries aren’t abiding them. And developed countries ship them because there lands are limited and they have other things to build, instead of wasting the ground for trash. And there is when the developing countries come in, who has land but lack of money. Therefore, the developing countries sell their land for money. There should be a stronger and a more precise policy to prevent such actions. There should also be policies regarding to e-textiles. Because the lack of such policies, companies do not feel the responsibility of the hazardous wastes they are producing.

Walsh, Dylan. "Could 'Smart' Textiles Prove Toxic? - NYTimes.com." *Energy and Environment - Green Blog - NYTimes.com*. Web. 19 Nov. 2011. <http://green.blogs.nytimes.com/2011/11/02/into-the-rubbish-bin-toxic-e-textiles/>.

Stakeholders

United Nations-One of the organizations that could regulate disposal policies, such as attaching e-textiles and preventing illegal dumpings.

Companies(designers, engineers, CEOs)-All companies should be cooperative in reusing e-textiles that would do less harm to both people and the environment when they are saved from the waste. The CEOs have to first decide to reuse them to command designers and engineers to extract them.

Countries(Developed and Developing)-A lot of the developed countries do not know how to deal with the electronic wastes, and conduct illegal shippings. Also, the developing countries are involved because they are the ones who are actually dealing with the waste by burning them and piling them.

People who used or are now using electronical devices-Alot of individuals are involved because electrical devices are being bought and thrown away by the individuals.

3.

Strand 1

Policies-The article states that the deficiency of policies has caused problem relating to the end life of electrical products. Companies do not reuse e-textiles because there aren't any regulations that force them to, and if they do it would cost them money for extracting every bits of pieces from their products. Also, countries are conducting illegal shipping of wastes, which requires definite policies because coutnries should deal with their own trash, not just give it to other countries  that won't be able to deal with it either. And the countries recieving it should be looking for other ways to gain money in a more appropriate way rather than just being a dump ground.

People and machines-The article indicates that manufacturers and marketers focus on both rapid technological change and seasonal fashion. Due to the continuous and periodical advance of technology, people only focus on the advantages, and ignore or not notice the harms of the advance. People pursue new technology and don't look back to the old ones they used to use. They wouldn't care about it anymore because there is something new in their hands.

Globalization and cultural divesity-Travel between countries have become easier through time, and resulted in importing and exporting products. Some countries have used this to ship away e-wastes through sea. They can noweasily transport trashes to other countries and use it as their advantages such as earning money and not wasting land for trashes.

Digital citizenship- People are just replacing their old devices with new ones eventhough it worksfinely. Also, they do not recylcle parts that can be reused. The whle device goes into the trash can and dumped away. As a digital citizen, people are lacking respect for the use of IT.

Strand 2

Business and Employment-Manufacturers do not care of the safety of exposures because reusing e-textiles would cost more money than the product. Then it would cost more for the consumers to buy it, resulting in low income.

Environment-In the article, the United Nations stated that electronic waste accumulates annually in “soaring mountains” of refuse. There are problems of dealing with wastes around the country that would harm the nature of earth with toxic chemicals if not dealt soon enough. There is also a problem of source depletion of silver. Silver is used in e-textiles that could help less exposure of chemicals, however there is not enough to supply every product that is being made.

Health-workers often burn electronic components to recover amounts of valuable metals in the wasted products. This exposes the workers to highly toxic fumes. The hazardous materials would include acid and mercury. It can have malicious effects such as problem with the immune system. Also in some areas, contamination has lead to nearby schools and marketplaces that could affect many people, including little kids.

Strand 3

Hardware- this article only deals with the topic of hardware because it relates to the issue of the disposal of used hardware. The article talks of the used electronics accumulating in some countries that take up space and damage the environment, causing problem.

Stakeholders

United Nations

Companies(designers, engineers, CEOs)

Governments(Developed and Developing countries)

People who used or are using electronical devices

4.

One source( source 1) analyzed the parts of electronical devices and produced an explanation for all parts. I would like to summarize major parts individually.

Lead-Lead can cause health problems for humans such as brain damages. For the environment, it can damage the water and soil system of nature.

Mercury-Mercury is easily found in houses through lightbulbs. These are hazardous to the environment and to health when they are crushed. They produce a highly toxic material, methyl-mercury.

Cadmium-Cadmium can hurt the soil system. This can cause serious problems in the food chain. It can also be dangerous when it is burnt and sent away into the atmosphere.

Brominated Flame Retardants-When this part of the device is smelt and oxidized, it produces Brominated dioxins and furan. This is hazardous because it can also go into the food chain such as fishes and other fatty foods, that could soon lead to us causing problems in our immune systems.

Beryllium-Beryllium is small dust particles. It is dangerous when inhaled by people by causing lung disorders.

Another source(source 2) was more general. It stated that firstly, the reuse and recycle of devices can reduce taking up extra spaces of land. The rate of electronical devices thrown away is increasing, and the recycle and reuse can save up to 2.5 million tons of metals. Secondly, same as the previous source, stated the environmental and health problems. The effects of decomposition of metals can have effects to aquatic living beings and humans who eat them, and when humans swim in the water. So it is basically effecting the whole food chain. Finally, only ten percent of the electronical devices are actually recycled. This issue relates to green house gases. The more people recycle the less greenhouse gas can be produced because less products can be produced.

Source 1

"Health and Environmental Affects of Ewaste | 1800Ewaste." *E Waste Recycling Pickup. We Recycle E-waste, Computer & Electronic Waste – Free Quote*. Web. 19 Nov. 2011. <http://www.ewaste.com.au/ewaste-articles/how-the-materials-found-in-ewaste-can-affect-human-health-and-the-environment/>.

Source 2

Harkins, Dan. "What Are the Harmful Effects of E-Waste to the Environment? | EHow.com." *EHow | How to Videos, Articles & More - Discover the Expert in You. | EHow.com*. Web. 19 Nov. 2011. <http://www.ehow.com/info\_8460782\_harmful-effects-ewaste-environment.html>.

5.

As global citizens who have electronical devices, should be responsible for their possessions. People should take good care of their products and consider other choices of changing a computer. Maybe the computer can work just fine if people just take a look into the individual components and upgrade them. However, there is a limitation to this because not everyone has the knowledge to know very well of a computer.

Secondly, try to recycle computers, in a literal meaning. A computer that is useless to one, can be a present to another. This could reduce thrown away computers because the person trying to throw it away can just give it out to another person who can use it just finely. There is a problem in this thought because technology does not seize to advance. The second person who receives the computer would pass it on to others, but sooner or later that computer will be considered an out dated machine. Also, when computers are used for a long period, they cause problems frequently. Then it would be hard for others to continue to use it when they have to check up on the status and change components of the computer every day.

Thirdly, a lot of resources are just being wasted due to the lack of notice of recycling used devices. Computers and televisions can be recycled by extracting certain metals. However, people do not consider to recycle them. And it is hard to find flaws in the notion of recycling, a process that could benefit everybody

Fourthly, according to governments, some batteries can be recycled. There are non-hazardous batteries such as alkalines, Lithium ion, and nickel metal hydride batteries. However, same as the previous thoughts, there is a problem of lack of knowledge. Without the knowledge of knowing which battery is non-hazardous, it is likely that people can make mistakes, leading to more detrimental results. There is also a problem of laziness. Unless they are really caring for nature, a lot of people wouldn’t go all the way to recycling centers.

Finally, as for many companies, they should consider the environment more. Eventhough their profit off of products is important, for the company and for the global economy, later the problem of e-waste will come back to them and it will be a major problem for their businesses. Therefore, all companies relating to producing electronic devices should contact eachother and make a certain regualtion to lessen the production of devices, and only produce amounts that are necessary. Or they should globally decide to attach smart textiles on their products for less harm to the nature. However, this is a problem because it is hard to put all the global companies together and make a decision. There are alot of companies relating to the production of electronic devices, and there are many being made right now. Also, eventhough they meet, it is hard to come to one decision if there aren't any serious authorities such as governments that surpress them because any company could decide to ignore the policy or oppose to it.

This is where the government and organizations come in. As the higher power than companies, they can convince the public to support regulating the productions or attaching smart textiles. Then the companies would have to follow the government and produce the decided amount of products. However, there is a problem relating to the big range these organizations cover. Since organizations such as the UN takes care of many countries, they cannot take care of the details. Therefore, there can be illegal companies that pass through the laws cunningly.

Phillips, Kay. "How to Reduce Ewaste | EHow.com." *EHow | How to Videos, Articles & More - Discover the Expert in You. | EHow.com*. Web. 19 Nov. 2011. <http://www.ehow.com/how\_5142866\_reduce-ewaste.html>.

6.

As a student, my homeworks require access to a computer most of the time for word documentation and research. And it is more useful for me to have my own computer to do my work. Since I am a student and all, I mostly need my computer for basic needs of applications. Therefore, I do not order stressful commands on the computer or take up the memory a lot. So the computer can be used for a long time compared to people in other professions. So, the time being as a student, I will not change my laptop to a new one. This would help reducing the amount of obsolete computers.

Also, as a ITGS student, I feel responsible of spreading what I know of e-waste and what people can do to recycle. Since a lot of people do not know what part of the computers can be recycled, they just throw the whole device away. Same goes with the batteries. If people knew where the recycling centers were, and how to distinguish batteries, they would act on recycling resources. As a student learning technology and it’s effects, I should be able to help people recycle since I know the current situation of the dumps and the effects of recycling.